applications. Depending on the application, the polymer will have different properties. For instance, if the polymer is to be used as a pressure-sensitive adhesive it should have the properties set forth on page 5, lines 21-52. Likewise, if the polymer is to be used as an alkali-soluble adhesive, it should be formulated as set forth on page 5, line 53, through page 6, line 16. For these two different applications, the polymers are different from one another. There is no guidance to select the polymer of the instant claims for use in a protective coating on a transparent substrate.

In regard to page 31, lines 29-34 "which discuss the removability of adhesive coating," this passage is referring to examples conducted on pressure-sensitive *adhesive tape* wherein an acrylic polymer adhesive on a polyester film. The tests were for the ability to remove the tape and whether any of the adhesive remained on the surface. This test for removability of the tape is not concerned with removing a coating from a transparent surface with a removing agent.

In regard to the coating being applied on a transparent surface, the Office Action refers to page 6, lines 37-43, of EPA '498. This passage is directed to alkali-soluble films, such as sheets, which can be used as a packaging material, separating sheets, and base material of labels. This passage does not refer to a coating (like a layer of paint) applied to a transparent surface. That is, the term "film" is used in the context of a thin sheet, not a coating.

Moreover, a film or sheet is used as a packaging film or separator sheets would not require a removing agent, and one skilled in the art would not have considered using a removing agent comprising a base, preferably a strong base, and a complex former based on this disclosure.

The Office Action also refers to page 48, lines 15-17. This passage is directed to a polyethylene plate used to test adhesion. There is no disclosure that the polyethylene plate is transparent. Moreover, this is a test for adhesion and does not teach or suggest a protective coating, which includes a binder and a pigment on a transparent surface.

Furthermore, that a polymer as disclosed in EP '498 is *capable* of being used to form a protective coating on a transparent surface is not the same as teaching or suggesting that the polymer *is* used in a protective coating. There is simply no teaching or suggestion in EP '498 that the acrylic polymer is used in a coating on a transparent surface.

The Office Action (page 8, last paragraph) also considers page 43, lines 25-27 of EP'498 to be particularly relevant. This passage mentions the use of an acrylic polymer as a temporarily protecting film, which is produced by blow molding or extrusion molding. It is noted that a film that is blow molded or extruded would be a thin sheet, not a coating. Thus, this passage does not suggest a coating on a *transparent* substrate, as required by the pending claims. Moreover, the polymer of this example has a weight average molecular weight of 168,000 (see line 20-21 of page 43), which is outside the range cited in the instant claims, which require a weight-average molecular weight of 10,000-100,000.

That a broad and generic description of the polymer in EP '498 *encompasses* a polymer that is required as a binder in the instant claims provides no teaching to select a polymer for use in a protective coating on a transparent surface that falls within the scope of the instant claims.

The instant claimed coating has sufficient adhesive strength to adhere to the transparent substrate and sufficient cohesive strength to remain intact. The coating has strong resistance to various weather influences, such as rain, frost and UV radiation. The coating contains a binder that has high UV stability, which makes the coating more durable than prior art coatings and contains pigments, which impart to the coating the desired protective action against solar radiation. The coating is also easy to apply to the intended surface and is easily removable. Specifically, the coating can be removed in a manner that is not particularly labor-intensive nor requires chemicals that harm the environment.

EP '498 does not provide any teaching or guidance on how to select a proper binder for a coating for use on a transparent substrate as claimed. It can only be through hindsight application of the instant claims that one skilled in the art would have arrived at the parameters of instant claim 1 based on EP '498. Withdrawal of the instant rejection is requested.

Claims 30-49 stand rejected as anticipated by, or as obvious over, EP 0478 067. According to the Office Action, first paragraph of page 5, the values of weight average molecular weight, acid value, glass transition temperature and polydispersity are inherently met by the polymer of EP '067, since the polymer is the same. This statement is respectfully unsupported and inaccurate.

The Office Action appears to be assuming that the nature of a polymer is completely defined by the nature of the monomers of which it is composed, which is inaccurate. Two polymers of the same monomer but of different molecular weights are different physical and chemical entities. When considering the properties of copolymers, the relative amounts of the co-monomers are relevant.

At page 9, the Office Action points out that a document may disclose more than its specific examples or preferred embodiments. However, a fair reading of EP '067 shows that **no** copolymers, *other than the styrene maleic anhydride copolymer mentioned in the Example*, are disclosed in an enabling manner. EP '067 (page 1, lines 46-48) simply does not provide any disclosure of a polymer meeting the definition of the binder in instant claim 1. It merely makes reference to an organic polymer or copolymer with, possibly neutralized, carboxylic acid residues. There are many examples of polymers that are an organic polymer or copolymer with, possibly neutralized, carboxylic acid residues that do not meet the definition of the binder of instant claim 1.

EP '067 is silent regarding parameters that define the polymers, such as molecular weight. Thus, there is simply no disclosure of any polymer falling under the definition of the binder of current claim 1. Accordingly, EP '067 does not teach or suggest the instant claims.

A declaration was filed with the previous response by Mr. Bertels, an inventor of both EP '067 and the present application. The Declaration specifically points out that the copolymer referred to in EP '067 is outside the scope of the claims of the present application. This copolymer is the ***only*** binder disclosed in the example of EP '067 and is a styrene maleic anhydride copolymer that has an acid value of 220, a glass transition temperature of 110 °C, a number average molecular weight of 3600, a weight average molecular weight of 9000, and a polydispersity of 2.5.

The declaration is, in spite of the statement at page 10 of the Office Action, completely commensurate with the teaching of EP '067. It shows that the product specifically identified in EP '067 is outside the scope of the instant claims and has disadvantages. A proper comparison was made with this binder because it is the ***only*** binder disclosed. Moreover, Mr. Bertels is one of the inventors of the instant application is one of the inventors of '067 and his sworn statement,

"he was not aware that a coating having the specific criteria of the claimed invention would provide such improved results over the coating disclosed in EP '067," should be accepted absent evidence to the contrary.

As demonstrated in the Declaration, the EP '067 binder has relatively low UV stability, and when exposed to the sun, the cohesive strength deteriorates. These properties of the EP '067 binder make the coating rather brittle, and thus too fragile for use outdoors. In practice, it was found that coatings applied in accordance with EP'O67 need to be reapplied two to three times in one season.

In contrast, the binder disclosed in the instant claims is more durable than that of EP '067 and has high UV stability. The binder has an acid value of 40 to 250, a glass transition temperature of 10 to 60 °C, a weight average molecular weight of 10,000 to 100,000, and a polydispersity of 2 to 6. It was found that a coating comprising a binder satisfying all of these criteria meets the requirements for creating a coating that has sufficient adhesive strength to the substrate on which it is applied and sufficient cohesive strength to remain intact. The protective coating of the instant claims is durable throughout the season without need for repair. Yet the coating is easily removable by a base. These results are demonstrated in the Examples of the present application.

In order for a reference to anticipate a claim, it must satisfy each and every element of the claim. EP'067 does not specifically teach the ranges claimed in the instant application. The inventors of the instant invention were not aware that a coating having the specific criteria of the claimed invention would provide such improved results over the coating disclosed in EP '067. Moreover, the only binder exemplified by EP'067 does not fall within the scope of the instant claims. Therefore EP'067 does not anticipate the instant claims.

Claims 30-49 stand rejected as obvious over EP 0533 367 in view of EP 0478 067. EP'367 discloses forming a protective coating on products to protect such products in transport and from the elements. The protective coating is used on metallic substrates and is designed to protect against corrosion and the like (see page 4, line 37). EP '367 contains no pigment and there is no motivation to add a pigment to this coating.

EP'367 does not teach or suggest forming a protective coating on a substantially transparent substrate in accordance with the instant claims. There is no reason that one skilled in the art would have used a coating designed to prevent corrosion on a metal surface as a coating on a substantially transparent surface. Moreover, the protection afforded by the protective coating of the instant claims is not to the transparent surface itself but to the objects *covered by* the substantially transparent surface.

The coating described in EP'367 is removable using an alkaline solution. However, it is apparent that the coating of EP'367 is difficult to remove. After application of a 1% solution of monoethanolamine (an alkaline aqueous solution), the coating is removed by washing with water (see page 5, line 16). This implies that mechanical labor is required to remove the coating. This is highly disadvantageous for cleaning large surfaces.

EP'067 does not remedy the defects of EP'367. EP'067 discloses a protective coating and a method of forming such coating against solar radiation for glass plates and outer surfaces of greenhouses. The coating consists of a polymer and one or more inorganic pigments with the coating. One skilled in the art would not have modified the coating for metal substrates based on the coating of EP'067 for transparent surfaces. The coatings are non-analogous. There is no need for a pigment for the disclosed purposes of EP'367 and adding a pigment would clearly be through the hindsight afforded by the claimed invention. Moreover, EP'367 contains organic solvents, which would be highly undesirable in the coatings of EP'067 designed for outdoor use. Organic solvents can damage the environment and the evaporation of the solvents can be considered harmful.

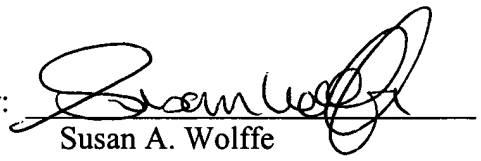
One skilled in the art would not have modified the coating of EP'367 based on the coating of EP'067. Withdrawal of the instant rejection is requested.

CONCLUSION

The claimed invention solves the problem of providing a durable, adhesive coating that is removable which is lacking in the prior art. None of the prior art teaches or suggests the removable coating of the claimed invention. In view of the above remarks, withdrawal of the instant rejection is requested.

Respectfully submitted,

Date: May 8, 2003

By: 

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